REMARKS

In the final Office Action, the Examiner continued to reject claims 1, 2, 4, 5, 8-13, and 15-19 under 35 U.S.C. § 102(e) as anticipated by MEDARD et al. (U.S. Patent No. 6,047,331); reject claims 6 and 21 under 35 U.S.C. § 103(a) as unpatentable over MEDARD et al. in view of HSING et al. (U.S. Patent No. 6,167,025); reject claim 3 under 35 U.S.C. § 103(a) as unpatentable over MEDARD et al. in view of OHNO (U.S. Patent No. 6,252,853); and reject claim 7 under 35 U.S.C. § 103(a) as unpatentable over MEDARD et al. in view of OHNO, and further in view of CALLON et al., Network Working Group Internet draft, "A Framework for Multiprotocol Label Switching," November 21, 1997. The Examiner newly rejected claim 24 under 35 U.S.C. § 102(e) as anticipated by AHMAD et al. (U.S. Patent No. 6,359,857). The Examiner also allowed claim 14 and objected to claim 20 as containing allowable subject matter.

Applicants note with appreciation the indication that claim 14 is allowable over the art of record and that claim 20 contains allowable subject matter.

Claims 1, 2, 4, 5, 8-13, and 15-19 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by MEDARD et al. Applicants respectfully traverse this rejection.

Applicants' independent claim 1 recites that at least one of the nodes in a network comprises a processor to compute an alternative route for an initial route by identifying one or more alternative-route-enabled nodes, identifying downstream network elements, and generating the alternative route based on the identified one or more alternative-route-enabled nodes and the identified downstream network elements, a storage space to store the initial route and the alternative route, a mechanism to detect failure in a downstream network element in the initial route, and a forwarder to automatically forward a packet to the next node.

A proper rejection under 35 U.S.C. § 102 requires that the reference teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. See M.P.E.P. § 2131. Applicants submit that MEDARD et al. does not disclose or suggest each of the features recited in Applicants' claim 1.

For example, MEDARD et al. does not disclose or suggest a processor that computes an alternative route for an initial route by identifying one or more alternative-route-enabled nodes, identifying downstream network elements, and generating the at least one alternative route based on the identified one or more alternative-route-enabled nodes and the identified downstream network elements. The Examiner relied on Fig. 1, parts 12a-12e; col. 9, lines 44-55; and col. 9, line 66 to col. 10, line 5 of MEDARD et al. for allegedly disclosing these features (final Office Action, pg. 2). Applicants submit that these sections of MEDARD et al. do not disclose or suggest the above features of claim 1.

Elements 12a-12e in MEDARD et al.'s Fig. 1 correspond to network nodes. This figure of MEDARD et al. does not disclose or suggest that one or more of network nodes 12a-12e includes a processor that computes an alternative route for an initial route by identifying one or more alternative-route-enabled nodes, identifying downstream network elements, and generating the at least one alternative route based on the identified one or more alternative-route-enabled nodes and the identified downstream network elements, as required by Applicants' claim 1.

Col. 9, lines 44-55, of MEDARD et al. discloses:

> In general overview and taking network node 12a as representatives of nodes 12b-12e, network node 12a includes an automatic protection switch (APS) processor 14, a routing table 16 and a protection switching module 18. APS processor 14 receives information describing the network 10. Such information typically includes, but is not limited to the number of nodes to be connected in the network, the number of links which exist in the network, traffic load, information

> identifying which of the paths 20 are available to connect particular ones of nodes 12 in existing network 10, the nodes and links which should be used to re-route signals in the event of a failure, etc. . . .

This section of MEDARD et al. merely discloses that each of network nodes 12a-12e includes an automatic protection switch (APS) processor that receives, *inter alia*, information identifying the nodes and links that should be used to re-route signals in the event of a failure. This section of MEDARD et al. does not disclose or suggest that the APS processor computes an alternative route for an initial route by identifying one or more alternative-route-enabled nodes, identifying downstream network elements, and generating the at least one alternative route based on the identified one or more alternative-route-enabled nodes and the identified downstream network elements, as required by claim 1. The mere fact that MEDARD et al. discloses that network nodes 12a-12e receive information that includes the nodes and links that should be used to re-route signals in the event of a failure would in no way lead one skilled in the art to conclude that these network nodes 12a-12e also compute an alternative route for an initial route by identifying one or more alternative-route-enabled nodes, identifying downstream network elements, and generating the at least one alternative route based on the identified one or more alternative-route-enabled nodes and the identified downstream network elements, as required by Applicants' claim 1.

Col. 9, line 66 to col. 10, line 5, of MEDARD et al. discloses:

> In response to the information provided to APS Processor 14, APS Processor 14 computes pairs of tree topologies for each source-node/destination-node pair in the network. APS processor 14 then designates preferred links 20 between each of the network nodes 12a-12e in accordance with the computed tree topologies and any other rules provided thereto.

This section of MEDARD et al. appears to disclose the ability of each network node 12a-12e to

compute tree topologies for each source-destination pair in the network, since, as set forth above, MEDARD et al. discloses that each network node 12a-12e includes an APS processor 14. This section of MEDARD et al. does not disclose or suggest APS processor 14 computing an alternative route for an initial route by identifying one or more alternative-route-enabled nodes, identifying downstream network elements, and generating the at least one alternative route based on the identified one or more alternative-route-enabled nodes and the identified downstream network elements, as required by Applicants' claim 1. In fact, this section of MEDARD et al. appears to teach away from these features of claim 1. If each network node 12a-12e in MEDARD et al.'s system includes an APS processor that computes tree topologies for source-destination pairs, then each network node 12a-12e would be considered an alternative-route-enabled node. Therefore, there would be no need for a network node 12a-12e in the MEDARD et al. system to identify one or more alternative-route-enabled nodes because each network node 12a-12e would automatically know that all nodes 12a-12e are alternative-route-enabled nodes.

The Examiner appears to support this position by alleging "[s]ince all the nodes in figure one are illustrated as being represented by node 12a then all the nodes in figure 1 are capable of being alternative-route enabled" (final Office Action, pg. 8). As set forth above, since, as admitted by the Examiner, each node 12a-12e in MEDARD et al.'s system is alternative-route enabled, there would be no need for any of network nodes 12a-12e to identify one or more alternative-route-enabled nodes because each network node 12a-12e would automatically know that all network nodes 12a-12e are alternative-route-enabled nodes.

For at least the foregoing reasons, Applicants submit that MEDARD et al. does not disclose every feature of Applicants' claim 1. Therefore, claim 1 is not anticipated by MEDARD

et al.

Claims 2, 4, and 5 depend from claim 1. Therefore, Applicants submit that these claims are not anticipated by MEDARD et al. for at least the reasons given above with respect to claim 1.

Independent claim 8 recites features similar to those described above with respect to claim 1. Therefore, Applicants submit that claim 8 is not anticipated by MEDARD et al. for reasons similar to those given above with respect to claim 1.

Claims 9-13 and 15-17 depend from claim 8. Therefore, Applicants submit that these claims are not anticipated by MEDARD et al. for at least the reasons given above with respect to claim 8.

Independent claim 18 recites features similar to those described above with respect to claim 1. Specifically, independent claim 18 recites, *inter alia*, "storing, at each of the select intermediary nodes, the alternative route" (emphasis added). MEDARD et al. discloses, in stark contrast, that all network nodes 12a-12e store redundant tree topologies (col. 12, lines 15-28). The Examiner acknowledges this fact on page 8 of the final Office Action. Since all of network nodes 12a-12e in the MEDARD et al. system are the same, none of network nodes 12a-12e would be considered a "select intermediary node," as required by Applicants' claim 18.

For at least the foregoing reasons and for reasons similar to those given above with respect to claim 1, Applicants submit that claim 18 is not anticipated by MEDARD et al.

Claim 19 depends from claim 18. Therefore, Applicants submit that this claim is not anticipated by MEDARD et al. for at least the reasons given above with respect to claim 18.

Claim 24 was rejected under 35 U.S.C. § 102(e) as allegedly anticipated by AHMAD et

al. Applicants respectfully traverse this rejection.

AHMAD et al. is directed to a system that includes a main data path and a bypass path that is used to bypass a portion of the main data path (Abstract).

By contrast, claim 24 recites at least one first node configured to store an initial route from the source device to the destination device and at least one alternative route from the source device to the destination device, detect a failure in a downstream network node in the initial route, and automatically forward a packet to a node on one of the at least one alternative route in response to detecting the failure; and at least one second node configured to store the initial route, detect a failure in a downstream network node in the initial route, and forward a failure message to an upstream first node in response to detecting the failure, where the failure message causes the upstream first node to automatically forward a packet to a node on one of the at least one alternative route. Applicants submit that AHMAD et al. does not disclose or suggest this combination of features.

For example, AHMAD et al. does not disclose or suggest at one second node configured to store the initial route, detect a failure in a downstream network node in the initial route, and forward a failure message to an upstream first node in response to detecting the failure, where the failure message causes the upstream first node to automatically forward a packet to a node on one of the at least one alternative route. The Examiner relied on col. 3, lines 5-12, of AHMAD et al. for allegedly disclosing the recited at least one second node. Applicants submit that this section of AHMAD et al. does not disclose or suggest the recited feature.

Col. 3, lines 5-12, of AHMAD et al. discloses:

> comprising nodes for each of the domains, for monitoring respective domains and for issuing alarms in the form of packets, to other nodes downstream, with a

domain identifier indicating the respective domain in which the alarm originated, the method comprising the steps of:

detecting at a given one of the nodes an alarm issued from a node upstream of the given node and a corresponding identifier;

This section of AHMAD et al. merely discloses the ability to detect an alarm issued from an upstream node. Contrary to the Examiner's position, this section of AHMAD et al. in no way discloses or suggests at one second node configured to store the initial route, detect a failure in a downstream network node in the initial route, and forward a failure message to an upstream first node in response to detecting the failure, where the failure message causes the upstream first node to automatically forward a packet to a node on one of the at least one alternative route, as required by Applicants' claim 24.

For at least the foregoing reasons, Applicants submit that AHMAD et al. does not disclose every feature of Applicants' claim 24. Therefore, claim 24 is not anticipated by AHMAD et al.

Claims 6 and 21 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over MEDARD et al. in view of HSING et al. Applicants respectfully traverse this rejection.

Claims 6 and 21 depend from claims 1 and 18, respectively. The disclosure of HSING et al. does not remedy the deficiencies in the disclosure of MEDARD et al. set forth above with respect to claims 1 and 18. Therefore, Applicants submit that claims 6 and 21 are patentable over MEDARD et al. and HSING et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claims 1 and 18.

Claim 3 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over MEDARD et al. in view of OHNO. Applicants respectfully traverse this rejection.

Claim 3 depends from claim 1. The disclosure of OHNO does not remedy the deficiencies in the disclosure of MEDARD et al. set forth above with respect to claim 1. Therefore, Applicants submit that claim 3 is patentable over MEDARD et al. and OHNO, whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1.

Claim 7 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over MEDARD et al. in view of OHNO, and further in view of CALLON et al. Applicants respectfully traverse this rejection.

Claim 7 depends from claim 1. The disclosures of OHNO and CALLON et al. do not remedy the deficiencies in the disclosure of MEDARD et al. set forth above with respect to claim 1. Therefore, Applicants submit that claim 7 is patentable over MEDARD et al., OHNO, and CALLON et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1.

In view of the foregoing remarks, Applicants respectfully request the Examiner's reconsideration of the application and the timely allowance of pending claims 1-21 and 24.

If the Examiner does not believe that all pending claims are now in condition for allowance, the Examiner is urged to contact the undersigned to expedite prosecution of this application.

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Application Serial No. 09/354,640
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To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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